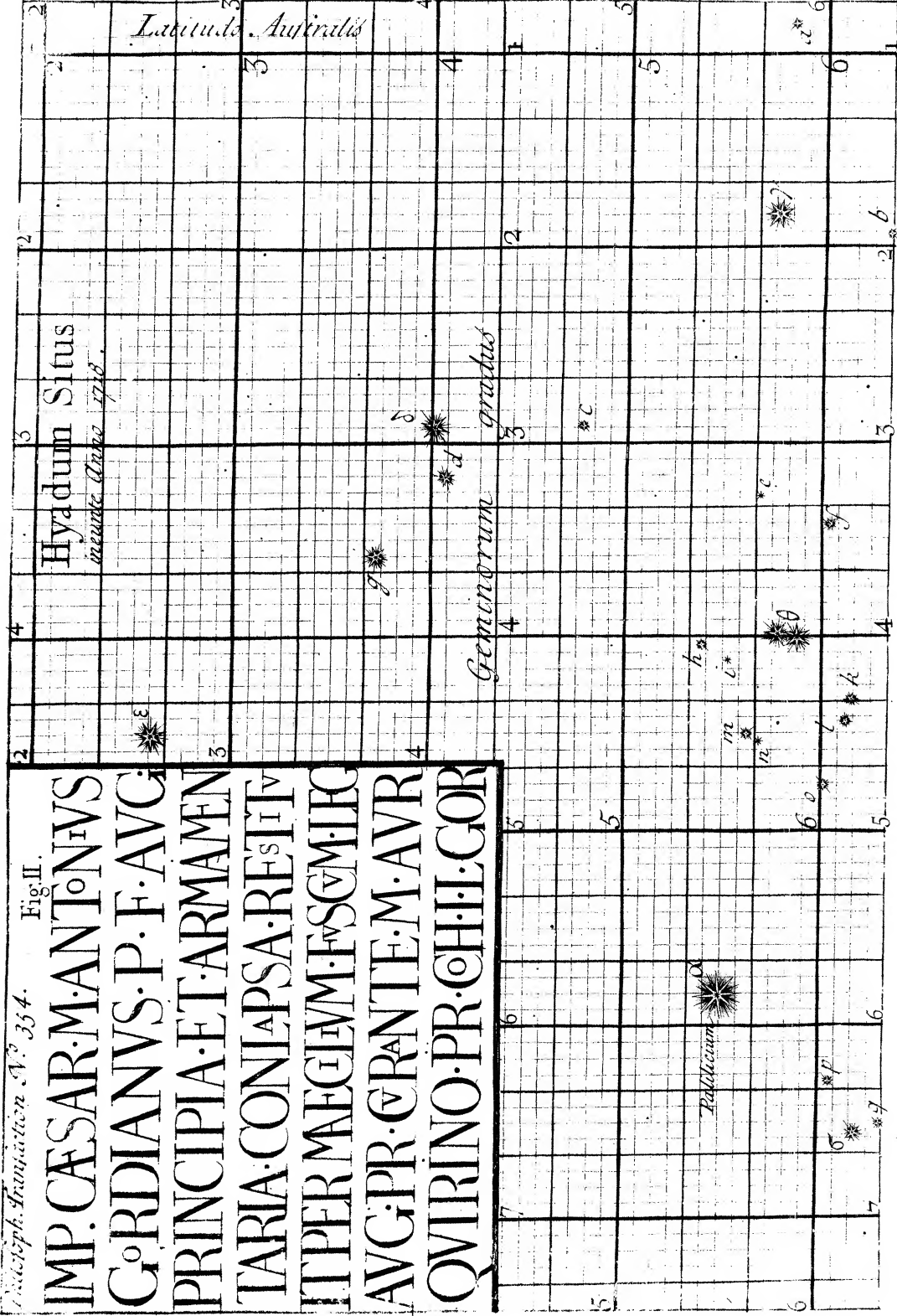


IMP. CÆSAR. M. ANTONVS
 GORDIANVS. P. F. AVG.
 PRINCIPIA. ET. ARMAMEN
 TARIA. CONIAPS. A. RESIT
 IT. PER. MÆGIVM. F. SCVM. IHC
 AVG. PR. GRANTE. M. AVR
 QVIRINO. PR. CH. I. COR



Exemplum. Ad demonstrationem Solutionis nostræ suffecerit exemplum simplicissimum. Sit itaque $n=1$; quo in Casu est ABD semicirculus diametro AG descriptus, atque est EBF item semicirculus descriptus diametro AE . Est autem in hoc Casu $\frac{x x^n}{\sqrt{a^{2n}-x^{2n}}} = \frac{x x}{\sqrt{a^2-x^2}}$. Unde

in § 3. fit $\dot{z} = \frac{x x}{\sqrt{a^2-x^2}}$; adeoque $z = a - \sqrt{a^2-x^2}$, quæ æquatio est ad Circulum diametro $AG=a$ descriptum, ut fieri debuit. Item pro n scripto 1, æquatio $z x - z x \times a^{n-1} = \dot{r} x^n$ (§ 12.) migrat in hanc $\dot{z} x - z \dot{x} = \dot{r} x$. Unde exterminando r ope æquationis $\dot{r} r = \dot{x} x + \dot{z} z$, fit $\frac{2 \dot{z} z x - x \dot{z}^2}{x^2} = -\dot{x}$; adeoque regrediendo ad Fluentes $\frac{\dot{z} z}{x} = -x + a$, quæ æquatio est ad Circulum diametro $AE=a$ descriptum, ut etiam fieri debuit.

III. *Extract of a Letter of Dr. Chr. Hunter, M.D. to Dr. J. Woodward, R. S. S. from Durham, giving an Account of a Roman Inscription, lately dug up in the North of England; with some Historical and Chronological Remarks thereon.*

THE Inscription which comes herewith, (*Fig. II.*) was dug up, two Years ago, in the *Roman CASTRUM*, near *Lanchester*: The Inscription is very legible, and gives me reason to hope, a Search after the first Fortifying this Place will not be unnecessary; especially, being able to fix the Time of Gordian's Repair-

Repairing this Fortrefs, to the 243d Year of Chrif. We may reasonably afcribe the Foundation to the prudent Adminiftration of *Julius Agricola*, in the Reign of *Fl. Vefpafian*, about 169 Years before. In Confirmation of this, I find the following Particulars very material, and think it not unbecoming to begin my Enquiry with *Vefpafian's* firft Appearance upon the Theatre of Fame in *Britain*.

In the Second Year of the Emperor *CLAUDIUS*, *Ann. Dom.* 44. the *Romans* invaded *Britain*, under the Command of *Aulus Plantius*, in which Expedition *Vefpafian* *, then Legate of the Second Legion, made a glorious Figure; having been engaged in no lefs than thirty Battels, and reduced two powerful Provinces, above twenty Towns, and the Ifle of *Wight*. All thefe Succeffes, tho' continued with good Improvements in fome of the following Years and Governments, could not frighten the Natives into an entire Submiffion; efpecially, no Advance being made into the Country of the *Brigantes*, till the Advancement of *Vefpafian* to the Imperial Throne, about 26 Years after, *Ann. Dom.* 70. Then the whole Empire was deliver'd from the Miferies of *Nero's*, and the fhort but lamentable Devaftations of the three fucceeding Reigns: *Vefpafian* then refolv'd to push on his begun Conquefts in *Britain*; choice Armies, commanded by experienced Generals, are fent over; and the XXth Legion, having in the preceding Troubles acted feditioufly, (not without Difficulty) was reduced to fubmit to *Vefpafian* (moft of the Officers as well as Soldiers having been advanced by *Vitellius*). *Julius Agricola* is conftituted Legate, who, under the Governour *Petilius Cerealis*, bore a confiderable Share

* *Suetonius*, *Vefpafian*, Cap. 4.

in the Successes against the *Brigantes*; * “ Sed primò
 “ *Cerealis* modò labores & discrimina, mox & gloriam
 “ communicabat: Sæpe parti Exercitus in experimen-
 “ tum, aliquando majoribus copiis ex eventu præfecit.
Tacitus afterwards in a few Words sums up the Whole
 of *Cerealis* his Acquisitions, † “ Terrorem statim intu-
 “ lit *Petilius Cerealis*, *Brigantum* Civitatem, quæ nu-
 “ merosissima Provinciæ totius perhibetur, aggressus;
 “ multa prælia, & aliquando non incruenta; magnam-
 “ que *Brigantum* partem aut victoria amplexus, aut
 “ bello. . . Notwithstanding these Advantages, I dare not
 suppose the *Romans* to have then penetrated so far into
 this Province as our *Longovicum*, which is situate so
 near the Northern Bounds of the *Brigantes*, that at pre-
 sent it's not distant above twelve Miles from *Corbridge*,
 the Roman *Curia*, the chief Town of the adjoining Peo-
 ple the *Otadini*. I now advance to my principal Mo-
 tive, (I hope its Length may deserve Pardon, being un-
 der no Obligation to account for the Government of
Jul. Frontinus Successor to *Cerealis*) to fix upon the se-
 cond Year of *Julius Agricola*'s Government for this Work,
 which *Tacitus* thus describes, || “ Sed ubi *Ællas* adve-
 “ nit contracto Exercitu — loca Castris ipse capere,
 “ æstuaria ac sylvas ipse prætentare: & nihil interim
 “ apud Hostes quietum pati, quo minus subitis Excur-
 “ sibus popularetur; atque ubi satis terruerat, parcen-
 “ do rursus irritamenta Pacis ostentare. Quibus rebus
 “ multæ Civitates quæ in illum diem ex æquo egerant,
 “ datis Obsidibus iram posuere, & Præsidii Casteis-
 “ que circumdatæ, tantâ ratione curæque, ut nulla an-
 “ tè *Britanniæ* nova pars illacessita transferit. This ex-
 cellent Conduct *Tacitus* further confirms from the Ob-

* *Tacit. Vit. Agric.* 8.

† Cap. 17.

|| Cap. 20.

servation of Others. “ Adnotabant periti, non alium
 “ Ducem Opportunitates locorum sapientius legisse,
 “ nullum ab *Agricola* positum Castellum aut vi Ho-
 “ stium expugnatum, aut pactione aut fugâ delertum.

Agricola, this Summer, having quieted so large a Tract, and finished so many Fortresses, it cannot be expected all should be built with the most exquisite Art, sufficient to perpetuate them. I proceed to *Gordian's* Repairs ; whose Historian *Julius Capitolinus* having never once named *Britain*, yet giving so many Hints of the excellent Oeconomy of his Government, under the prudent Administration of his Father-in-Law *Misitheus*, I dare not fix this Work till the Third Year of his Reign, He having before been under the Direction of the Eunuchs and Officers of the Court, whom *Capitolinus* represents, in *Misitheus* his Letter to *Gordian*, to have prostituted all Employments to their own Covertness and mercenary Creatures.

Durham, July 5.
 1717.